

Title (en)
VEHICLE AIR CONDITIONING PACK WITH AIR CYCLE ASSEMBLY

Title (de)
FAHRZEUGKLIMAAANLAGENPAKET MIT LUFTZYKLUSANORDNUNG

Title (fr)
BLOC DE CONDITIONNEMENT D'AIR DE VÉHICULE COMPORTANT UN ENSEMBLE DE CYCLE D'AIR

Publication
EP 3511248 A1 20190717 (EN)

Application
EP 19152077 A 20190116

Priority
US 201815872410 A 20180116

Abstract (en)
An air conditioning pack (145) includes an air cycle assembly (116), a vapor cycle system (126), and a mixing duct (138A, 138B, 138C). The air cycle assembly (116) is configured to receive bleed air and utilize the bleed air to compress ram air. The vapor cycle system (126) is configured to receive the compressed ram air and to reduce an operating temperature of the compressed ram air. The mixing duct (138A, 138B, 138C) is configured to receive the compressed ram air and mix the compressed ram air with the bleed air to generate a hybrid air stream that is used for cooling at least a portion of a vehicle (10).

IPC 8 full level
B64D 13/06 (2006.01)

CPC (source: CN EP US)
B64D 13/02 (2013.01 - CN); **B64D 13/06** (2013.01 - EP US); **B64D 13/08** (2013.01 - CN US); **B64D 2013/0618** (2013.01 - EP US); **B64D 2013/0648** (2013.01 - EP US); **Y02T 50/50** (2013.01 - EP)

Citation (search report)

- [A] EP 2918497 A1 20150916 - BOEING CO [US]
- [A] EP 3173337 A1 20170531 - AIRBUS OPERATIONS GMBH [DE]
- [A] EP 1386837 A1 20040204 - LIEBHERR AEROSPACE GMBH [DE]

Cited by
US11518210B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3511248 A1 20190717; **EP 3511248 B1 20200729**; CA 3023348 A1 20190716; CA 3023348 C 20230627; CN 110040254 A 20190723; JP 2019167082 A 20191003; JP 7290419 B2 20230613; US 10611487 B2 20200407; US 2019217960 A1 20190718

DOCDB simple family (application)
EP 19152077 A 20190116; CA 3023348 A 20181106; CN 201910006835 A 20190104; JP 2019002640 A 20190110; US 201815872410 A 20180116